

Claim Amendments

The following complete listing of the claims including amended claims will replace all prior versions of claims in the application.

Listing of Claims

1. (currently amended) A processor comprising a programmable pipeline and at least one interface engine (130), adapted to be connected to at least one external device (140) located externally of the processor, ~~characterized in that~~ wherein the interface engine (130) is adapted

- to receive a request (170) from the programmable pipeline,
- to send to the external device (140) a request output (270), based at least partly on the request (170),
- to receive an external reply (330) from the external device (140), and
- to send to the pipeline a response (340), based on the external reply (330), to the request (170).

2. (currently amended) A processor according to claim 1, whereby the request (170) comprises a first request code (210), according to a first coding scheme, the interface engine (130) being adapted to execute a program, the execution being dependent upon the first request code (210), and to obtain, as a result of the execution of the program, at least one device control code (300), according to a second coding scheme, in addition to which the interface engine (130) is adapted to send the device control code (300) to the external device (140), or the request output (270) is based at least partly on the device control code (300).

3. A processor according to claim 2, whereby the device control code is an operational code of the external device.
4. (currently amended) A processor according to claim 2 ~~or 3~~, whereby the program is stored in a microcode memory ~~(230)~~ included in the interface engine.
5. (currently amended) A processor according to ~~any of the claims 1 to 4~~ claim 1, whereby the pipeline comprises a plurality of access points, and the interface engine ~~(130)~~ is adapted to receive a request ~~(170)~~ from at least one of the access points ~~(150)~~, the interface engine comprising a reply control unit ~~(320)~~ adapted to receive at least one receiver ID signal ~~(213)~~ related to the request ~~(170)~~, and to determine, based on the receiver ID signal ~~(213)~~, the access point which is to receive the response ~~(340)~~.
6. (currently amended) A processor according to claim 5, whereby the reply control unit ~~(320)~~ is adapted to receive an input control signal (310), based on which timing information for receiving the external reply ~~(330)~~ from the external device ~~(140)~~ can be determined.
7. (currently amended) A processor according to ~~any of the claims 1 to 6~~ claim 1, at which the pipeline comprises a plurality of access points, whereby the number of access points ~~(150)~~ adapted to send a request to the interface engine ~~(130)~~ can be adjusted.
8. (currently amended) A method in processor comprising a programmable pipeline and at least one interface engine ~~(130)~~, adapted to be connected to at least one external device ~~(140)~~ located externally of the processor, ~~characterized in that it comprises~~ wherein the method comprising the steps of
 - receiving a request ~~(170)~~ from the programmable pipeline,

- sending to the external device (140) a request output (270), based at least partly on the request (170),
- receiving an external reply (330) from the external device (140), and
- sending to the pipeline a response (340), based on the external reply (330), to the request (170).

9. (currently amended) A method according to claim 8, wherein the request (170) comprises a first request code (210), according to a first coding scheme, the method further comprising the step of executing a program, the execution being dependent upon the first request code (210), to obtain at least one device control code (300), according to a second coding scheme, in addition to which the device control code (300) is sent to the external device (140), or the request output (270) is based at least partly on the device control code (300).

10. (currently amended) A method according to claim 9, whereby the device control code (300) is an operational code of the external device.

11. (currently amended) A method according to claim 9 or 10, whereby the program is stored in a microcode memory (230) included in the interface engine.

12. (currently amended) A method according to ~~any of the claims 8 to 11~~ claim 8, at which the pipeline comprises a plurality of access points, whereby the request (170) is received from at least one of the access points (150), the method further comprising the steps of

- sending at least one receiver ID signal (213), related to the request (170), to a re-
ply control unit (320) included in the interface engine, and
- determining, based on the receiver ID signal (213), the access point which is to receive the response (340).

13. (currently amended) A method according to claim 12, further comprising the step of sending to the reply control unit (320) an input control signal (310), based on which timing information for receiving the external reply (330) from the external device (140) can be determined.

14. (currently amended) A method according to ~~any of the claims 8 to 13~~ claim 8, at which the pipeline comprises a plurality of access points, whereby the number of access points (150) adapted to send a request to the interface engine (130) can be adjusted.